

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
25 March 2004 (25.03.2004)

PCT

(10) International Publication Number
WO 2004/024561 A1

(51) International Patent Classification⁷: B64F 1/00, (74) Agents: SCHMITT, Armand et al.; Office Ernest T. Freylinger S.A., B.P. 48, 8001 Strassen (LU).

(21) International Application Number: PCT/EP2003/050625

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 15 September 2003 (15.09.2003)

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(25) Filing Language: English

Published:

— with international search report

(26) Publication Language: English

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

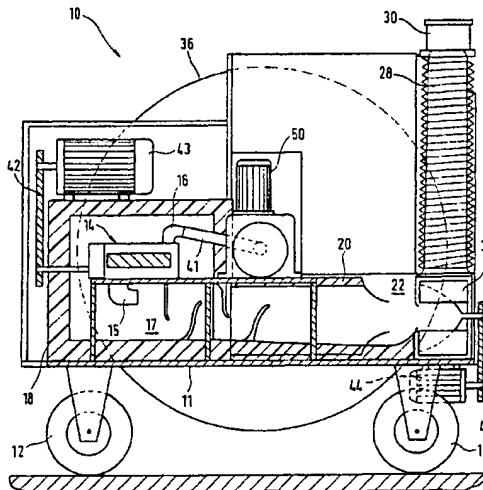
(30) Priority Data: 90 967 16 September 2002 (16.09.2002) LU

(71) Applicant (*for all designated States except US*): IPALCO B.V. [NL/NL]; Ohmweg 17, NL-2952 Alblasserdam Bd (NL).

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): WIDEGREN, Michael [SE/DE]; Oberhochstader Strasse 16, 61440 Oberursel (DE).

(54) Title: DEVICE FOR SUPPLYING PRECONDITIONED AIR TO AN AIRCRAFT ON THE GROUND



(57) Abstract: A device (10) for supplying preconditioned air to an aircraft on the ground, comprises a compressed air inlet (16) and a compressed air hose (34) having a first end connected to the compressed air inlet (16) and an opposite second end for connection to a remote, ground-based, compressed air unit. Expander means (14) are situated downstream of the compressed air inlet (16) for allowing the compressed air to expand to lower pressure and temperature. The device (10) further includes an ambient air inlet (24) and a mixing chamber (22) downstream of the expander means (14) and communicating with the ambient air inlet (24), wherein mixing of ambient air with the expanded, cold air is controlled in such a way as to elaborate preconditioned air at the desired temperature. A connection hose (28) has a first end in communication with said mixing chamber and a second end to be connected to an aircraft on the ground.

WO 2004/024561 A1